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**DECEMBER 1999**

**FINAL ENVIRONMENTAL ASSESSMENT  
FOR CONSTRUCTION OF DREDGED MATERIAL  
MANAGEMENT AREA SJ-29**

**INTRACOASTAL WATERWAY  
ST. JOHNS COUNTY, FLORIDA**

**US Army Corps  
of Engineers**  
Jacksonville District  
South Atlantic Division





REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT CORPS OF ENGINEERS  
P. O. BOX 4970  
JACKSONVILLE, FLORIDA 32232-0019**

**DREDGED MATERIAL MANAGEMENT AREA CONSTRUCTION  
INTRACOASTAL WATERWAY  
ST. JOHNS COUNTY, FLORIDA  
SITE SJ-29**

**FINDING OF NO SIGNIFICANT IMPACT**

I have reviewed the Environmental Assessment (EA) of the proposed action. This Finding incorporates by reference all discussions and conclusions contained in the EA attached hereto. Based on information analyzed in the EA, reflecting pertinent information obtained from other agencies and special interest groups having jurisdiction by law and/or special expertise, I conclude that the proposed action will have no significant impact on the quality of the human environment. Reasons for this conclusion are, in summary:

1. Consultation with the U.S. Fish and Wildlife Service was conducted. The service concurred that there would be no impacts on any threatened or endangered species.
2. The Florida State Historic Preservation Officer concurred with the Jacksonville District's determination that the project will not affect significant historic properties.
3. State water quality standards will be met for Phase I clearing and grubbing. Phase II construction will require State water quality certification and is being sought at this time for impacts to isolated wetlands.
4. The proposed project has been determined to be consistent with the Florida Coastal Zone Management Program (CZMP). Final confirmation that the project is consistent with the CZMP by the State will occur when the WQC is issued in accordance with the 1979 Memorandum of Understanding and the 1983 Addendum to the Memorandum concerning acquisition of water quality certifications and other State of Florida authorizations.
5. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.



CESAJ-PD-ER


SUBJECT: Finding of No Significant Impact

6. Benefits to the public will include continued long-term maintenance of this reach of the Intracoastal Waterway and short-term benefits on the local economy from the construction of the dredged material management area.

7. A Public Notice, PN-IWW-215, dated May 12, 1997, indicated that the Draft Environmental Assessment was available to the public during the public review period. Comments received were incorporated into the Final Environmental Assessment.

In consideration of the information summarized, I find that the proposed action will not significantly affect the human environment and does not require an Environmental Impact Statement.

December 22, 1997  
Date

  
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JOE R. MILLER  
Colonel, Corps of Engineers  
Commanding



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## **1.0 PURPOSE OF AND NEED FOR ACTION**

### **1.1 Introduction**

The proposed action consists of Phases I and II of the construction of SJ-29, an upland dredged material management area serving Reach III (as defined in Taylor and McFetridge, 1989) of the St. Johns County, Florida portion of the Intracoastal Waterway (IWW). Reach III extends from IWW mile 25.47 at Deep Creek southward 12.24 miles to IWW mile 37.71 at the Bridge of Lions. The purpose of the proposed action is to create a long-term upland dredged material management facility that would provide adequate capacity for 50 years of maintenance material dredged from the adjacent IWW. Maintenance dredging in the IWW has been constrained by a lack of suitable sites to place dredged material. Existing easements are largely unusable because they are located in wetlands or their upland areas are too small for efficient dredged material management. As the demand for residential and commercial property along the waterway increases, suitable upland sites are becoming scarce. Therefore, long-term dredged material management facilities must be constructed so that the Federal channel can be maintained at its authorized depth.

### **1.2 Authority**

Spanning nearly the length of Florida from Jacksonville to Miami, an 8 x 75 ft IWW channel was authorized January 21, 1927 by House Document 586, 69<sup>th</sup> Congress, 2<sup>nd</sup> Session. The present channel configuration (12 x 125 ft) was authorized by House Document 740, 79<sup>th</sup> Congress, 2<sup>nd</sup> Session. The U.S. Army Corps of Engineers is responsible for the maintenance of the channel and the Florida Inland Navigation District (FIND) serves as the local sponsor.

### **1.3 Decision to be Made**

The decision to be made is whether to construct a dredged material management facility for Reach III of the IWW in St. Johns County.

### **1.4 Relevant Issues**

The following issues are relevant to the decision:

- ° water quality
- ° biological resources
- ° threatened and endangered species
- ° migratory birds
- ° cultural, historical, and archeological resources
- ° navigation
- ° socioeconomics
- ° aesthetics

- air quality
- hazardous, toxic, and radioactive materials

## 1.5 Methodology

In 1986, the FIND initiated a long-range dredged material management program to provide a permanent infrastructure of management facilities for all maintenance material dredged from the IWW. In support of this program, Taylor Engineering, Inc., under contract to the FIND, has prepared dredged material management plans for the IWW on a county-by-county basis. The management program for each county includes a systematic plan comprising the following elements:

- Review of all available dredging records, channel surveys, existing FIND dredged material easements, and pertinent sediment data;
- Establishment of operational channel reaches and corresponding 50-year maintenance dredging and material storage/management requirements;
- Determination of deficits in existing material storage capacity for each operational reach;
- Evaluation of dredged material management alternatives and definition of the dredged material management concept most appropriate for each reach;
- Identification, where appropriate, of candidate upland sites for evaluation as dredged material management areas;
- Evaluation of suitable existing easements and candidate sites for development as dredged material management areas using a standard set of engineering, environmental, and socioeconomic criteria; and
- Establishment of a site bank of primary (first-choice) and secondary (second-choice) dredged material management alternatives for each reach.

The St. Johns County plan is described in the *Long-range Dredged Material Management Plan for the Intracoastal Waterway in St. Johns County, Florida* (Taylor and McFetridge, 1989) and an accompanying engineering plan book. The plan was prepared by an interdisciplinary team of engineers and environmental scientists using the systematic process outlined above. The evaluation of alternatives described in Taylor and McFetridge (1989 — reviewed in Sections 2.1 — 2.4) resulted in the selection of SJ-29 as the primary dredged material management area for Reach III. Subsequently, an environmental characterization (Ashton and Mosura, 1990 — included as Appendix I),

permit drawings and *Engineering Narrative* (included as Appendix II), and a site management plan (Taylor et al., 1991) were prepared for SJ-29.

## **1.6 Permits Required**

State jurisdictional wetlands on the site would not be impacted by construction, thus a state water quality certification would not be required. However, a Federal National Pollutant Discharge Elimination System (NPDES) stormwater permit would be required. Isolated wetlands on the site are subject to the permitting authority of the St. Johns River Water Management District. Permits to burn cleared vegetation would be obtained from the appropriate local government agency or authority.

## **2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION**

### **2.1 Introduction**

Several dredged material management alternatives were considered for the St. Johns County portion of the IWW. The alternatives were evaluated in the context of a long-term dredged material management strategy intended to resolve the recurring conflicts between the engineering and operational requirements of channel maintenance and the environmental and land-use constraints imposed on dredged material placement and storage. Evaluation of alternative management strategies led to the adoption of three primary tenets to guide the long-term management strategy. These are:

1. Future dredged material management will be confined to upland areas to the maximum extent possible.
2. Centralized management sites will be established for each identified channel reach. Centralized sites will reduce the total acreage required for dredged material management and will reduce the proliferation of smaller dredged material management facilities, each with its own set of outlet works and attendant water quality considerations.
3. Dredged material management sites will be operated and maintained as permanent facilities in which dredged material will be actively managed and made available for reuse.

### **2.2 History of Alternative Formulation**

Dredged material management alternatives for the IWW in St. Johns County were developed as part of the FIND's long-range dredged material management program. The alternative selected for Reach III must be able to handle 9,000 cubic yards of maintenance dredging material, the projected 50-year material storage requirement. Throughout the alternative evaluation process, Federal, state, and local regulatory issues were addressed through continued coordination with appropriate agencies via an interagency project advisory committee. The long-range dredged material management program and alternative evaluation resulting from this process, previously summarized in Section 1.5, are documented in Taylor and McFetridge (1989).

## **2.3 Eliminated Alternatives**

The following dredged material management alternatives were considered and subsequently eliminated.

### *2.3.1 Ocean Disposal*

Ocean disposal of dredged material requires the use of deep draft ocean barges or hopper dredges. These vessels, because of their size, cannot operate in the relatively shallow depths of the IWW. Therefore, ocean disposal would require multiple handling of dredged material using shallow draft vessels or pumping in combination with seagoing barges. In addition, limited ocean access within the project area would introduce significant increases in transport or pumping distances with associated increases in operational costs. Collectively, these requirements render ocean disposal impractical and prohibitively expensive.

### *2.3.2 Beach Placement*

Since no channel maintenance has been performed in Reach III, no information is available on sediment characteristics in this reach. Due to the uncertain sediment characteristics and distance of the northern part of the reach from suitable beach placement sites, prudent long-term planning cannot assume beach placement is a viable alternative.

### *2.3.3 Open Water Placement with Habitat Restoration*

Open water placement in artificial dikes followed by habitat restoration was the only form of open water placement considered feasible in St. Johns County. However, significant difficulties would accompany this alternative, including the unproven likelihood of success and the uncertainty of obtaining environmental permits and approval to use submerged state lands. Additionally, this alternative would require increasing acreages of submerged land for each dredging operation. These limitations preclude the use of this alternative as a long-term management strategy.

### *2.3.4 Other Upland Sites*

Taylor and McFetridge (1989) evaluated several alternative upland dredged material management sites. Their evaluation was based on the engineering, environmental, and cultural considerations listed below.

- Engineering/Operational Considerations

- Capacity
- Adequate dike material
- Pumping distance
- Pipeline access
- Upland access
- Soil properties
- Environmental Considerations
  - Wetland avoidance or minimum wetland impact
  - Isolated wetlands and wetland quality
  - Upland impacts
  - Ability to provide buffer zone
  - Groundwater conditions
- Cultural/Economic Considerations
  - Minimal existing development
  - Ownership
  - Archeological or historical sites

No dredged material placement easements exist within Reach III. Two candidate upland sites, designated SJ-28 and SJ-29, were therefore evaluated for this reach. Taylor and McFetridge (1989) recommended SJ-28 as the primary site since it is more isolated and involved a shorter pipeline route than SJ-29.

Subsequently, however, the affected property owner (who owned both SJ-28 and SJ-29) indicated that a planned residential development would surround SJ-28 and, as part of the development, the existing road to the site would be abandoned. These planned changes would increase potential future land use conflicts at SJ-28 and the difficulty of accessing the site. In contrast, SJ-29 has good access via public roads and is located in an area that would undergo less future development. In consideration of these issues, SJ-29 was selected as the primary dredged material management site for Reach III.

## **2.4 Alternatives**

### *2.4.1 No Action*

Under the no action alternative, a dredged material management site would not be constructed for Reach III of the IWW in St. Johns County.

### *2.4.2 Construction of SJ-29*



SJ-29 would be an approximately 49-acre site containing a dredged material containment basin and a 34-acre buffer area. Construction would occur in two phases. Phase I construction would consist of clearing and grubbing the area to be occupied by the containment basin footprint and the area to be occupied by the service road and perimeter ditch. The buffer area would not be cleared. Phase II would entail construction of the diked containment basin.

## **2.5 Alternative Comparison**

Table 2.1 provides a summary comparison of the two alternatives described above, derived from the information presented in Sections 4.1 and 4.2.

## **2.6 Preferred Alternative**

Construction of SJ-29 is the preferred dredged material management alternative for Reach III in St. Johns County. The SJ-29 dredged material management area would satisfy the dredged material handling requirements for Reach III and would involve minimal impacts to wetlands.

TABLE 2.1, ALTERNATIVE COMPARISON

Issue	Alternative	
	No Action	SJ-29A
Water Quality	No Impact	No Impact
Biological	No Impact	Elimination of about 14.4 acres of upland communities and 0.4 acres of isolated wetlands
Threatened and Endangered Species	No Impact	No Impact
Migratory Birds	No Impact	No Impact; Jacksonville COE Migratory Bird Protection Plan would be followed
Cultural, Historical, and Archeological Resources	No Impact	No Impact
Navigation	Significant long term reduction in Navigability of IWW	Significant long term benefit from maintenance of IWW
Socioeconomics	Long term adverse impact to water related businesses as navigability of IWW is reduced	Minor short term stimulus for local businesses during construction; long term benefit to water related businesses
Air Quality	No Impact	Short term impact during burning of cleared vegetation
Hazardous, Toxic, and Radioactive Wastes	No Impact	No hazardous materials are known on or would be placed on the site
Aesthetics	No Impact	Minor impact during construction; vegetated buffer area would prevent significant long term impact

### **3.0 AFFECTED ENVIRONMENT**

#### **3.1 General**

SJ-29 would occupy an approximately 49 acre parcel west of the IWW (Tolomato River) at the northern end of Reach III in St. Johns County (Sheet 1 of 5, Appendix II). The site, an upland property situated between two branches of Stokes Creek, is separated from the IWW by a 3,000 ft wide band of salt marsh.

During preparation of the long-range dredged material management plan for St. Johns County, Ashton and Mosura (1990) characterized the environmental setting of SJ-29. The environmental characterization (copy attached as Appendix I) includes descriptions and maps of land cover and vegetative communities, characterization of wildlife communities, and discussion of jurisdictional wetlands.

#### **3.2 Water Quality**

Ashton and Mosura (1990) first identified and located wetlands using blue line aerial photography (1"=200'), color infrared photography (1" = 2,000'), U.S. Department of Interior Wetland Inventory Maps, a U. S. Department of Agriculture soil survey, and U. S. Geological Survey topographic maps. The type and extent of wetland communities was verified during field inspections conducted on July 10, 1989 and September 19, 1990. Wetlands and other vegetative communities were classified according to Level III of the *Florida Land Use, Cover and Forms Classification System* (FDOT, 1985). A formal verification of wetland jurisdictional lines by regulatory agencies should be done prior to final site design.

Small areas (totaling about 0.5 acres) of state jurisdictional wetlands are on the site — salt marsh on the eastern boundary and wetland forests on the northern boundary. The wetlands on the northern boundary apparently drain into Marshall Creek via a series of off-site wetlands. The salt marsh on the eastern boundary is part of the wide band of marsh separating the site from the IWW. These jurisdictional wetlands are classified as Class II waters under Chapter 17-302 F.A.C. Isolated wetlands occupy a total of about 0.7 acres in three separate parts of the site interior and one area on the southern boundary. Ashton and Mosura's (1990) environmental characterization did not include an examination of water quality indicators or trends in water quality in these wetlands. It is unlikely that such information is available for the subject site.

### 3.3 Biological

SJ-29 contains four upland vegetative communities — pine flatwoods (11.7 acres), sand pine (16.9 acres), pine-mesic oak (18.8 acres), and xeric oak (0.2 acres). Four wetland communities are present — wetland coniferous forest (0.4 acres), mixed wetland forested (0.4 acres), saltwater marsh (0.1 acres), and wet prairie (0.3 acres). The composition and location of these communities, summarized below, is documented in Ashton and Mosura (1990).

The most abundant community on SJ-29, pine-mesic oak, occupies the eastern third of the site. This community is dominated by trees such as live oak, cabbage palm, pond pine, and slash pine. The understory is dominated by saw palmetto or gallberry. The central portion of the site is occupied by the pine flatwoods community. This community is dominated by slash pine in the canopy and saw palmetto and wax myrtle in the understory. These two communities, together with scattered ephemeral wetlands, are probable habitat for many of the amphibian and reptile species whose presence has been recorded in St. Johns County. Mixed forested areas such as these are flyway stopovers for northern passerine birds. Birds of prey may find important feeding and perching habitat along the eastern edge of the forest overlooking the salt marsh.

The western third of the site, covered by the sand pine community, is dominated by sand pine with a dense understory that includes rosemary, gallberry, huckleberry, staggerbush, and tarflower. This community has not been burned or cleared recently so the thick shrub layer reduces species diversity. Gopher tortoises are not apparent in this area. Six-lined racerunners and green anoles are present. This area is likely habitat for other reptiles and small mammals including the gopher frog, indigo snake, southern fence lizard, peninsula crowned snake, southern black racer, red rat snake, eastern coachwhip, and Florida mouse.

The xeric oak community, occupying a small area on the northern site boundary, is open with scattered sand pine, sand live oak, and myrtle oak. Ground cover includes wire grass, greenbrier, and other herbaceous plants. Gopher tortoise burrows are not present in this vegetative community at this location.

The wetland coniferous forest, isolated in the central part of the site, is dominated by sand pine and herbaceous vegetation adapted to short hydroperiods. The mixed wetland forest along the northern boundary has a canopy of red maple, sweetgum, swamp tupelo, and slash pine. The isolated wet prairie communities are open with scattered slash pine, red maple, gallberry, and dahoon holly as the dominant vegetation. These areas, when wet, provide breeding habitat for amphibians and feeding habitat for wading birds and small mammals.

Saltwater marsh on the eastern boundary is dominated by smooth cordgrass with stands of needle rush in the upper marsh. The salt marsh provides habitat for numerous invertebrates such as fiddler crabs, saltwater marsh crabs, and bleeding tooth snails. These and other organisms in turn provide food for wading birds and birds of prey.

### 3.4 Threatened and Endangered Species

The following species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) could be in the construction area (Ashton and Mosura, 1990; Wood, 1994 ). Species observed during the site characterization are marked with an asterisk (\*).

American alligator.....	<i>Alligator mississippiensis</i>
Eastern indigo snake.....	<i>Drymarchon corais couperi</i>
Piping plover .....	<i>Charadrius melodus</i>
Peregrine falcon .....	<i>Falco peregrinus</i>
Bald eagle .....	<i>Haliaeetus leucocephalus</i>
Wood stork* .....	<i>Mycteria americana</i>

Wood storks were observed flying over the site during Ashton and Mosura's survey. These birds may use nearby rookeries.

A Quantitative Gopher Tortoise Survey conducted for the Corps in January 1997 revealed that this site does not have suitable habitat for Gopher Tortoises. None were found on the site.

### 3.5 Migratory Birds

SJ-29 is not presently a suitable site for migratory bird nesting.

### 3.6 Cultural, Historical, and Archeological Resources

Five archeological sites are recorded in the Florida Master Site Files for the vicinity of the Guana River (SJ-29) disposal area. Archival research and archeological field investigations were conducted by Marsha Chance, Environmental Services, for the Corps. Results of those investigations are included in the report *A Cultural Resource Assessment Survey of the Proposed Guana River (SJ-29) and Moses Creek (SJ-20A) Dredged Material Disposal Areas, St. Johns County, Florida*. No historic or prehistoric sites were identified during field investigation of this site.

### 3.7 Navigation

The major navigation activity on the IWW is recreational. Commercial craft on the waterway include barges, fishing vessels, and excursion boats. Several types of government vessels also use the IWW.

### **3.8 Socioeconomics**

The site is presently undeveloped. Low-density residential development is present immediately south of the site. Although the site is privately owned, the presence of trails on the site indicates that it may be used by area residents for recreational activities.

### **3.9 Aesthetics**

Observations during field inspections (July 10, 1989 and September 19, 1990) and a review of a 1984 aerial photography (1" = 2000') of the site show that SJ-29 is a wooded area abutting the fringing marsh along the west side of the Tolomato River. SJ-29 presently provides a wooded backdrop for a low density residential neighborhood lying immediately south and southwest of the site. The majority of the residences in this neighborhood are mobile homes, some of which are located within about 50 — 200 ft of the southern boundary of SJ-29. Additional residential development is planned for the majority of the tract to the north and west of the site. Extensive marsh east of the site precludes development between SJ-29 and the Tolomato River. Although SJ-29 is some distance from the Tolomato River, its location at the edge of the fringing marsh makes it the first forested land visible to the west from the Tolomato River.

### **3.10 Air Quality**

No significant sources of air pollution are located on or immediately adjacent to the site.

### **3.11 Hazardous, Toxic, and Radioactive Wastes**

No evidence of hazardous, toxic, or radioactive wastes was noted on SJ-29 during site visits. However, no investigation for the express purpose of identifying such materials was conducted on the property.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

### **4.1 No Action**

#### *4.1.1 General*

Under the no action alternative, a dredged material management site would not be constructed for Reach III of the IWW in St. Johns County.

#### *4.1.2 Water Quality*

Water quality would not be affected on the proposed site. However, without the proposed construction, water quality in the IWW would decline if shoaling decreases channel depth such that channel sediments would be resuspended by passing vessels. Resuspended sediments would result in increased turbidity and reduced water quality along the IWW.

#### *4.1.3 Biological Resources*

No impact on biological communities would occur.

#### *4.1.4 Threatened and Endangered Species*

No impact on threatened and endangered species would occur.

#### *4.1.5 Migratory Birds*

No impact on migratory birds would occur.

#### *4.1.6 Cultural, Historical, and Archeological Resources*

No effect on historic properties included in or eligible for inclusion in the National Register of Historic Places.

#### *4.1.7 Navigation*

No action would result in a failure to construct a long-term dredged material management site for Reach III of the IWW St. Johns County. Maintenance dredging in the IWW would be delayed or curtailed due to a lack of suitable sites to place maintenance material. Depths in the IWW would gradually decrease and impede navigation.

#### *4.1.8 Socioeconomics*

A long-term adverse impact to water-related businesses would occur as the navigability of the IWW decreases.

#### *4.1.9 Aesthetics*

No change in aesthetics would occur.

#### *4.1.10 Air Quality*

No change in air quality would occur.

#### *4.1.11 Hazardous, Toxic, and Radioactive Waste*

There would be no change in hazardous, toxic, or radioactive materials on the property.

#### *4.1.12 Unavoidable Adverse Impacts*

Navigation in the IWW would be impeded due to the delay or cessation of maintenance dredging. Resuspended sediments in the waterway would contribute to a decline in water quality.

#### *4.1.13 Irreversible and Irretrievable Commitments of Resources*

There would be no commitment of significant resources for this alternative.

### **4.2 SJ-29**

#### *4.2.1 General*

SJ-29 would serve as an upland dredged material management area for Reach III (as defined in Taylor and McFetridge, 1989) of the St. Johns County, Florida portion of the IWW. A summary description of the project is contained in the *Engineering Narrative* (Appendix II) prepared for the dredge and fill permit application. The *Management Plan, SJ-29 Disposal Area* (Taylor et al., 1991) discusses site preparation and design features, operational considerations, and site management.

As described in the above documents, approximately 34 acres of the 48.8 acre SJ-29 dredged material management facility would be preserved as a buffer area surrounding the containment basin. The containment basin, configured as shown in



Sheet 2, Appendix II, would occupy 14.8 acres. This represents approximately 30% of the total site area, leaving 70% of the total acreage as a natural buffer. Some additional acreage may also be affected by the construction of an access road and a perimeter ditch around the containment basin.

The containment basin, as shown in Sheet 3, Appendix II, would be formed by a dike with a crest elevation of +18.3 ft NGVD (10 ft above the existing mean site elevation). The dike would have a crest width of 12 ft and side slopes of 1V:3H. Material for dike construction would be obtained by excavating the interior of the containment basin to +5.3 ft NGVD (3 ft below existing mean grade).

The stability of the containment dike against erosion from rainfall runoff and wind would be maintained by vegetating the dike slopes and crest with native grasses immediately following dike construction. The grasses would quickly form soil binding mats while not rooting so deeply so as to structurally weaken the dike. An additional benefit of vegetating the dikes in this manner would be the improved appearance of the containment basin, thereby improving the aesthetic character of the site.

The configuration of the containment basin would preserve a 300 ft wide buffer on the north, west, and south sides of the containment basin. The buffer, with existing pine-dominated vegetative communities intact, would isolate the containment basin from existing and future development on adjacent properties. Likewise, a buffer no less than 300 ft wide would separate the east side of the containment basin from the adjacent marsh.

#### *4.2.2 Water Quality*

Of the 1.2 acres of wetlands on site, isolated wetlands occupy 0.7 acres. State jurisdictional wetlands, subject to the review and permitting authority of the Florida Department of Environmental Protection (FDEP), occupy 0.5 acres. The containment basin would be configured, however, such that all of the FDEP jurisdictional wetlands would lie within the buffer area and therefore would not be impacted. Some isolated wetlands (0.4 acres) would be filled as a result of Phase II construction. These isolated wetlands would be subject to the permitting authority of the St. Johns River Water Management District. Federal policy, however, requires no net loss of wetland values. Any mitigation thus required to offset impact to these wetlands would be determined during final project design. The remaining isolated wetlands (0.3 acres) would lie within the buffer and would not be affected. The proposed work would be coordinated with the FDEP to determine whether a water quality certification would be needed for the project.

The site management plan (Taylor et al., 1991 — Appendix III) and *Engineering Narrative* (Appendix II) describe in detail the operating procedures and expected hydraulic

performance of the proposed dredged material management facility. As discussed in these documents, the design features and facility operations would ensure that discharge from the containment basin during dredging operations meets state Class II water quality standards for turbidity and other parameters.

The facility design and management plans also contain provisions to control stormwater runoff between dredging operations. The containment basin would include an interior retention area of sufficient capacity to retain the first inch of stormwater runoff. The site operator would gradually release any ponded stormwater through the weir system. Stormwater would then be conveyed to the mean high water line of the adjacent marsh via a culvert or ditch. Construction details of the stormwater conveyance would be determined during final design. Retention and gradual release of stormwater would serve to minimize turbidity and to simulate natural discharge patterns following rainfall.

Although the design features above should prevent impacts to wetlands in the buffer, the site management plan includes provisions to monitor the status of these wetlands. The plan recommends that an environmental survey of the site be completed prior to construction to establish baseline habitat and vegetation conditions. Periodic re-surveys would then continue throughout the service life of the site. Degradation of the wetlands related to the interruption of natural drainage patterns, groundwater impacts, or other possible consequences of site construction or operations would be noted, corrective actions taken, and guidelines developed to minimize further adverse impact. Although the project does not appear to involve state jurisdictional wetlands, the proposed work would be coordinated with the FDEP to determine whether a water quality certification would be needed.

#### *4.2.3 Biological Resources*

All vegetation would be removed from the containment area. This would include about 14.4 acres of upland communities (pine flatwoods, sand pine, and pine-mesic oak) and 0.4 acres of isolated wetlands (wetland coniferous forest and wet prairie). During site clearing, most motile wildlife using the site would relocate to adjacent vegetated habitats. Clearing and wildlife relocation would lower the biological productivity of the site during Phase I construction. Wildlife not moving would likely be extirpated during construction. During the lag time between Phases I and II, the cleared area would be periodically mowed. The area would be colonized by pioneer species of plants, followed by small mammals, birds, and reptiles.

#### *4.2.4 Threatened and Endangered Species*

Construction on SJ-29 would not impact wildlife species listed by the USFWS. This determination is being coordinated with the USFWS; consultation with the USFWS would be concluded before completion of the NEPA documentation (Appendix III).

#### *4.2.5 Migratory Birds*

Dredged material management sites are generally viewed as desirable nesting habitat by migratory birds such as terns, laughing gulls, and plovers. Present land cover on SJ-29 does not provide favorable habitat for nesting. No impacts on migratory birds would be anticipated during Phase I (clearing and grubbing) or Phase II (dike construction). The dredged material management area would, however, be constructed in compliance with the Jacksonville District Corps of Engineers district-wide Migratory Bird Protection Policy (COE, 1993), a summary of which is given below.

The purpose of the migratory bird protection policy is to "provide protection to nesting migratory bird species that commonly use the dredged material disposal sites within Jacksonville District while facilitating disposal of dredged material to meet the Federal standard for navigation channel and harbor maintenance as authorized by Congress" (pg. 1). The migratory bird protection policy includes the following alternatives to prevent impacts to nesting birds — avoidance, creation of undesirable habitat, dissuasion through noise or activity, or creation of alternative nesting sites. A final alternative, incidental take, is undesirable and would not be considered unless an emergency situation arose. Should construction occur during nesting season (April 1 to September 1), the site protection plan presented in Appendix I of the migratory bird protection policy (COE, 1993) would be implemented. The site protection plan provides for education of contractor personnel, daily monitoring for nesting activity, steps to deter nesting in the construction area, avoidance of nests that may be present and, if necessary to protect nesting birds, cessation of construction activities.

#### *4.2.6 Cultural, Historical, and Archeological Resources*

As stated in paragraph 3.6 above, the site was subjected to intensive field investigations and no archeological or historic properties were identified on the site. Therefore, disposal area construction will not affect significant historic properties. This no effect determination was coordinated with the Florida State Historic Preservation Officer (SHPO). In letters dated February 9, 1996 and November 20, 1996, SHPO concurred with the Corps' determination.

#### *4.2.7 Navigation*

The construction of the SJ-29 dredged material management facility would have a long-term benefit to navigation on the IWW by facilitating maintenance dredging.

#### *4.2.8 Socioeconomics*

The local economy would experience a short-term stimulus from the contracting of equipment and labor and the sale of goods and services (fuel, food, lodging) in support of the construction. A long-term benefit would accrue to water-related businesses through continued maintenance of the IWW. No significant social activities would be altered by the construction of SJ-29.

#### *4.2.9 Aesthetics*

Construction activities would have a temporary, adverse impact on the aesthetic resources of the site. A temporary increase in air and noise pollution could be expected during construction. The site management plan (Taylor et al., 1991 — Appendix III) and *Engineering Narrative* (Appendix II) describe steps — vegetating the dikes and maintenance of a buffer area — that would minimize aesthetic impacts. The containment basin dikes would be planted with native grasses to reduce their visual impact. Existing vegetation around the exterior of the property would be left in place to screen the dikes from sight. Thus, the site, when viewed from off of the property, would appear similar to its pre-construction condition. Little impact would be visible from the adjacent residential development or planned future development. The buffer would also preserve the view of the site from the Tolomato River. If, however, existing vegetation proves inadequate in screening the dikes, then additional screening vegetation could be planted. The site would be fenced to protect the integrity of the dikes, provide for public safety, and to dissuade trash dumping. No permanent disruption of significant aesthetic value would be expected.

#### *4.2.10 Air Quality*

#### *4.2.10 Air Quality*

In the short term, smoke and particulates could increase if burning is used to dispose of cleared vegetation. Permits would be required from the appropriate governmental agencies. Should local regulations preclude on-site burning, then the cleared materials would be removed from the site and properly disposed.

#### *4.2.11 Hazardous, Toxic, and Radioactive Wastes*

Small quantities of equipment fuels or lubricants could spill or leak during construction. However, no significant quantities of hazardous, toxic, or radioactive waste would be released. Sediments would be tested prior to dredging to ensure that material placed in the facility contains no significant hazardous, toxic, or radioactive wastes.

#### *4.2.12 Unavoidable Adverse Impacts*

No significant adverse impacts have been identified. Minor impacts would include long-term loss of wildlife habitat and short-term reduction in air quality from burning.

#### *4.2.13 Irreversible and Irretrievable Commitments of Resources*

There would be no commitment of significant resources for this work.

### **5.0 COORDINATION WITH OTHERS**

The site selection process has been coordinated with state and Federal agencies through the work of an interagency advisory committee (Taylor and McFetridge, 1989). A public notice, PN-IWW-215 was issued May 12, 1997 (Appendix V).

## 6.0 REFERENCES

- Ashton, R. E. Jr. and Mosura, E. L. 1990. *Environmental Site Documentation for Proposed Dredged Material Disposal Areas in St. Johns County, Volume II — SJ-29*. Water and Air Research, Inc., Gainesville, FL.
- Florida Department of Transportation (FDOT). 1985. *Florida Land Use, Cover, and Forms Classification System*. Florida Department of Transportation, State Topographic Bureau, Tallahassee, FL.
- Taylor, R. B., McFetridge, W. F., and Cochrane, M. L. 1991. *Management Plan, SJ-29 Disposal Area*. Taylor Engineering, Inc., Jacksonville, FL.
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## 7.0 LIST OF PREPARERS

Table 7.1, List of Preparers, Taylor Engineering

NAME	DISCIPLINE	EXPERIENCE	ROLE IN PREPARING ENVIRONMENTAL ASSESSMENT
R. Bruce Taylor, Ph.D., P.E.	Coastal Engineer	Twenty years as consulting engineer - dredged material management, environmental impact assessment, mathematical modeling.	Project Manager for the FIND's long term dredged material management program.
William F. McFetridge	Coastal Engineer	Nine years as consulting engineer specializing in dredged material management issues, identification and evaluation of dredged material management areas, and design of dredged material management facilities.	Identified and evaluated candidate sites, designed dredged material management facility.
Mosura, E. Lynn Ray E. Ashton, Jr.			Field Research work under contract with Taylor Engineering Field Research work under contract with Taylor Engineering

Table 7.2, List of Preparers, Corps of Engineers

<u>NAME</u>	<u>DISCIPLINE</u>	<u>EXPERIENCE</u>	<u>ROLE IN PREPARING EA</u>
William J. Fonferek	Biologist	19 years environmental impacts assessment	O&M NEPA Coordinator, Environmental Impact Assessment, Endangered Species Coordination
Annon I. Bozeman	Environmental Protection Specialist	20 years experience NEPA documentation, field and design work	Environmental Impact Assessment document preparation and aesthetics evaluation
Thomas C. Birchett	Archeologist	12 years experience with cultural resource management	Cultural resource coordination with SHPO. Work with contractors doing field work. Cultural Resource Analysis.
Paul C. Stevenson	Landscape Architect	10 years landscape architect, field and design work	Aesthetic and Recreational Resource Analysis



**APPENDIX I**

**ENVIRONMENTAL SITE DOCUMENTATION**



ENVIRONMENTAL SITE DOCUMENTATION  
FOR  
PROPOSED DREDGED MATERIAL DISPOSAL AREAS  
IN ST. JOHNS COUNTY

VOLUME II - SJ-29

Report Prepared Under Contract to:

TAYLOR ENGINEERING, INC., FOR THE  
FLORIDA INLAND NAVIGATION DISTRICT

Prepared by:  
Ray E. Ashton, Jr.  
E. Lynn Mosura

WATER AND AIR RESEARCH, INC.  
Gainesville, Florida

November 1990  
File: 75300